ELECTROMAGNETICALLY COUPLED DEVICE

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Abstract of **WO0207173**

A coil (11) is electromagnetically coupled to a magnetic field having electric energy. A rectifier circuit (12) carries out full-wave rectification of the electric energy from the coil. A smoothing circuit (13) smooths the rectified output to provide a predetermined internal power supply. The coil has their ends connected to the source and drain of a MOS transistor (14), respectively. A voltage regulator (15) operates responsive to the output from the smoothing circuit and controls the gate voltage of the MOS transistor to limit the voltage (power) applied to the rectifier circuit. A data reception section (21) detects the modulating component of the electric energy obtained from the coil and receives the information signal indicated by the modulating component. A data transmission section (24) controls the gate voltage of the MOS transistor according to the transmission information, changes the electromagnetic coupling of the coil (Q of the coil) to the magnetic field, and transmits the transmission information.